REMARKS

Claims 1-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Koo et al. (U.S. Patent Number 6,804,219, hereinafter "Koo") in view of Kim et al. (U.S. Patent Number 6,947,397, hereinafter "Kim") and clams 13-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Koo in view of Kim and Lohtia et al. (U.S. Patent Application Publication Number 2002/0082033, hereinafter "Lohtia"). Respectfully disagreeing with these rejections, reconsideration is requested by the applicants.

Regarding the rejection of claims 1, 3, 4, 7 and 8, the Examiner cites Koo figure 2 unit 200, column 2 line 38, column 2 lines 43-46, and column 3, lines 60-63 as teaching the claim language. Column 2 lines 34-50 reads (emphasis added):

> Upon completion of the negotiation about a service option, a data service object establishes a **DTCH for transmission of user data** and transits to an active state **140** . If the initialization fails, the packet null state **110** is transited to.
>
> In the active state 140, data is transmitted on the DTCH. If the data service object transits to the active state 140 after setting the service option and as a result, the DTCH is available, the base station and the mobile station perform initialization procedures of RLP (Radio Link Protocol) and PPP (Point-to-Point Protocol). **If data transmission is discontinued for a predetermined time T_Active in the active state 140, the DTCH is released and a control hold state 130 is entered**. If it is anticipated from an estimate of the amount of oncoming transmission data that a non-data transmission period will last longer, the active state 140 may be transited directly to a suspended state 150 or a dormant state 160 without interposing the control hold state 130.

Column 3 lines 46-67 (emphasis added):

> When transmission data is generated in a control hold state 230, the f/r DTCH is assigned on the FCH or DCCH and then the low rate transmission substate 220 is transited to. If it is preferable to transmit the user data on the FCH or DCCH, it is transmitted in the low rate transmission substate 220 and the control hold state 230 is entered. On the contrary, if a higher rate channel is required to transmit a large amount of user data, the SCH is additionally established in the low rate transmission substate 220 , the DTCH is assigned

> on the SCH, and then the high rate transmission substate 210 is entered. When the user data is completely transmitted on the SCH in the high rate transmission substate 210 or a predetermined duration time of the SCH expires, the high rate transmission substate 210 transits to the low rate transmission substate 220 . **If data transmission is discontinued for a predetermined time** in the low rate transmission substate 220, **the DTCH is released** and the control hold state 230 is entered. In case a large amount of data is generated within the predetermined time in the low rate transmission substate 220 or some user data remains from the previous high rate transmission substate 210, the high rate transmission substate 210 is entered again.

On page 3 of the present office action, the Examiner notes that Koo fails to explicitly suggest delaying dropping the data channel for a time period based on the data rate. Instead, the Examiner cites Kim column 3 lines 16-21 and 37-41, which reads (emphasis added):

> Also, to obtain another aspect of the foregoing object of the invention, it is provided an apparatus for adaptive data receiving in a communication system having a plurality of sending communication means and receiving communication means which use a shared channel and a dedicated channel, the apparatus comprising: a receiver module for...
>
> a shared channel module for calculating an **idle allowable transmission rate about idle capacity utilization service sessions of the unit time based upon the control transmission rate value** about the services in the data traffic forecasting module; and a transmitter module for transmitting the allowable….

In contrast, independent claim 1 recites (emphasis added) "transmitting data over a wireless data channel **at a data rate…and delaying dropping the data channel for a time period based on *the* data rate**." The applicants submit that Koo does not teach delaying the dropping of the DTCH of Koo (used for the transmission of user data) based on the data rate of data transmitted over the DTCH; and furthermore, the applicants fail to see how the teachings of Kim, regarding calculating an idle allowable transmission rate can be combined with Koo to suggest delaying the dropping of the DTCH based on the data rate of the DTCH. Independent claim 4 recites (emphasis added) "prior to operating the data transmitter in a Control Hold state, **delaying transition to the Control Hold state for a period of time**, wherein the period of time is **based on a data rate**." The applicants submit that Koo does not teach delaying a transition to a control hold state based on any data rate; and furthermore, the applicants

fail to see how the teachings of Kim, regarding calculating an idle allowable transmission rate can be combined with Koo to suggest delaying a transition to a control hold state based on any data rate. Independent claim 7 recites (emphasis added) "a timer coupled to the channel circuitry, wherein the timer **delays deactivation of the channel circuitry after data transmission for a period of time, wherein the period of time is based on a data rate**." The applicants submit that Koo does not teach delaying deactivation of the channel circuitry of the DTCH of Koo based on a data rate; and furthermore, the applicants fail to see how the teachings of Kim, regarding calculating an idle allowable transmission rate can be combined with Koo to suggest delaying deactivation of the channel circuitry of the DTCH based on the data rate of the DTCH.

In general, the applicants fail to see how the functionality described in the cited passages of Kim would or could be combined with the functionality described in the cited passages of Koo. For example, how does "calculating an idle allowable transmission rate about idle capacity utilization service sessions of the unit time" suggest anything about the releasing of the DTCH in Koo, much less how the DTCH should be released. The applicants respectfully submit that even when such a combination (as presented in the present office action) is viewed with substantial hindsight, the functionality described in claims 1, 4 and 7 is not suggested. The applicants respectfully request that the Examiner explain in detail how the combination of Kim and Koo suggests what is recited in the claims or withdraw the present rejections.

Furthermore, dependent claim 3 recites (emphasis added) "**delaying dropping the data channel for a time period**, wherein the time period is **proportional to the data rate**." Dependent claim 8 recites (emphasis added) "wherein the period of time is **proportional to the data rate**." The applicants submit that neither Koo nor Kim, as cited by the Examiner, teaches that a delay period (i.e., the period of time to delay), such as described in these claims, should be based on a data rate or **proportional** to a data rate. The applicants do not see how the cited texts suggest any kind of proportional relationship such as that claimed.

Regarding claims 13 and 14, the Examiner cites Lohtia [0024] and [0029] as

teaching the claim language. Lohtia [0024] - [0029] reads (emphasis added):

> [0024] To communicate signaling and user data between the mobile station 12 and the base station system 14, a temporary block flow (TBF) is established either on the uplink 16 or the downlink 18 (depending on which of the peer entities is initiating the control signaling or data transfer). The data communicated between the mobile station 12 and the base station system 14 according to EGPRS are carried in logical link control (LLC) protocol data units (PDUs) on packet data channels (PDCHs). Each TBF is allocated radio resources on one or more PDCHs and comprises a number of RLC/MAC (radio link control/medium access control) blocks carrying one or more LLC PDUs. **A TBF is temporary and is typically maintained for the duration of a data transfer (until there are no more RLC/MAC blocks to be transmitted and, in RLC acknowledged mode, all of the transmitted RLC/MAC blocks have been successfully acknowledged by the receiving entity).**
> ...
> [0029] On the downlink 18, the base station system 14 initiates the release of a downlink TBF by sending an RLC **data block with a Final Block Indicator** (FBI) parameter set to the value "1." Thus, on the downlink, the indication of end of data transmission is provided by the FBI parameter in an RLC data block. In response to receiving an RLC data block with the FBI bit set to the value "1," the mobile station 12 transmits a PACKET DOWNLINK **ACK/NACK** message in a specified uplink block. Once the mobile station 12 has received all RLC data blocks of the TBF, the mobile station 12 then sends a PACKET DOWNLINK **ACK/NACK** message with the Final Ack Indicator bit set to the value "1." Upon receiving the PACKET DOWNLINK ACK/NACK message, the base station system 14 releases the TBF after certain events occur.

Dependent claim 13 recites (emphasis added) "**delaying termination of the TBF by transmitting dummy data** over the wireless data channel." Dependent claim 14 recites (emphasis added) "means for **delaying termination of the TBF by transmitting dummy data** over the data channel." Therefore, the applicants submit that the paragraphs cited by the Examiner do not teach or suggest the language of claims 13 or 14, since Lohtia [0024] and [0029] do not suggest delaying TBF termination by transmitting dummy data. Rather Lohtia [0024] and [0029] describe sending a final data block (not dummy data) followed by the requisite acknowledgment messaging. The applicants submit that the acknowledgment messaging described is neither suggestive of sending data (but rather suggests control signaling to indicate the receipt of data) nor suggestive of sending dummy data, in particular.

In the *Response to Arguments* section of the previous office action, the Examiner asserts that it is known by those of ordinary skill in the art that control signals can be in

the form of a dummy envelope of data. However, the applicants submit that Lohtia, as cited by the Examiner, does not teach or suggest **delaying** termination of the TBF, but rather sending a final **data** block (not dummy data) followed by the requisite acknowledgment messaging which triggers the TBF to be terminated. In other words, Lohtia describes a TBF terminating, in contrast to a TBF termination being delayed.

Since none of the references cited, either independently or in combination, teach all of the limitations of independent claims 1, 4 or 7, or therefore, all the limitations of their respective dependent claims (in addition to the arguments above regarding dependent claims 3, 8, 13 and 14), it is asserted that neither anticipation nor a prima facie case for obviousness has been shown. No remaining grounds for rejection or objection being given, the claims in their present form are asserted to be patentable over the prior art of record and in condition for allowance. Therefore, allowance and issuance of this case is earnestly solicited.

The Examiner is invited to contact the undersigned, if such communication would advance the prosecution of the present application. Lastly, please charge any additional fees (including extension of time fees) or credit overpayment to Deposit Account No. **502117 -- Motorola, Inc**.

Respectfully submitted,
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